Bachelor of Engineering Technology Honours in Chemical Engineering H6CE0Q

(SAQA: 111186) (NQF 8)

EB10.7.1 Purpose of the qualification

The Bachelor of Engineering Technology Honours in Chemical Engineering develops students for both industry and research, such that they are able to deepen their expertise in Chemical Engineering and develop research capacity in the methodology and techniques of the discipline.

EB10.7.2 Qualification outcomes

- Demonstrate competence to identify, formulate, analyse and solve complex engineering problems creatively and innovatively.
- Demonstrate competence to apply knowledge of mathematics, natural science and engineering sciences to the conceptualization of engineering models and to solve complex engineering problems.
- Demonstrate competence to perform creative, procedural and non-procedural design and synthesis of components, systems, engineering works, products or processes of a complex nature.
- Demonstrate competence to conduct investigations of complex engineering problems including engagement with the research literature and use of research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.
- Demonstrate competence to use appropriate techniques, resources, and modern engineering tools, including information technology, prediction and modelling, for the solution of complex engineering problems, with an understanding of the limitations, restrictions, premises, assumptions and constraints.
- Demonstrate competence to communicate effectively, both orally and in writing, with engineering audiences and the community at large.
- Demonstrate knowledge and understanding of the impact of engineering activities society, economy, industrial and physical environment.
- Demonstrate knowledge and understanding of engineering management principles.
- Demonstrate competence to engage in independent and life-long learning through well-developed learning skills.
- Comprehend and apply ethical principles and commit to professional ethics, responsibilities and norms of engineering practice.

EB10.7.3 Admission requirements and selection criteria.

- Bachelor of Engineering Technology in Chemical Engineering with a minimum average of 60%
- Bachelor of Technology in Chemical Engineering with a minimum average 65%
- Students with a bachelor's degree from a similar programme with a minimum average of 65% are required to do additional Chemical Engineering subjects from the Bachelor of Engineering Technology, as determined by the department board first, before admission is permitted.

EB10.7.4 Conferment of the degree

One year full-time.

EB10.7.5 Curriculum

CODE	MODULE	CODE	MODULE

First year

First semester		Second semester	
AEE8X01	Advanced Environmental Engineering	ARE8X02	Advanced Reaction Engineering
BCE8X01	Biochemical Engineering	EMM8X02	Engineering Management
CEM8X80	Advanced Chemistry	ESY8X02	Energy Systems
EMC8X01	Engineering Mathematics and Computing	OHSCEB1	Occupational Health and Safety
RPC8X00	Research Project: Chemical Engineering	RPC8X00	Research Project: Chemical Engineering